



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,760	05/05/2006	Armin Hopp	22-407-00047-US	1440
30678 7590 02/16/2011 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20006				
EXAMINER				
HENN, TIMOTHY J				
ART UNIT		PAPER NUMBER		
2622				
MAIL DATE		DELIVERY MODE		
02/16/2011		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,760

Applicant(s)

HOPP, ARMIN

Examiner

TIMOTHY J. HENN

Art Unit

2622

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12 November 2010 have been fully considered but they are not persuasive.
2. Applicant argues that Isakovic does not disclose at least on DMD as claimed. Specifically, Applicant argues that paragraph 0105 is limited to the system shown in Figure 1. However, the other embodiments, including Figure 5, are alternate configurations of Figure 1 which would use the same type of projector. Therefore, it is believed that Figure 5, which is an alternate embodiment, would use the same type of as shown in Figure 1 and as described in Paragraph 0105, namely a DMD projector. The examiner notes that a projector using a DMD is a digital light processing projector as claimed.
3. Applicant further argues that Isakovic does not disclose first and second driver circuits as claimed. However, while the driver circuits may be computers, the computers "control by way of its signal output operation of the projector 20". It is believed that any system which controls a second system in such a way can be considered a "driver circuit" as claimed. The claims as written only require the "driver" to "interact with a memory" and have a function of "controlling at least one DMD". Since the computers of Isakovic clearly perform these functions, they meet the requirements of the claimed "first driver circuit" and "second driver circuit". Therefore, Applicant's arguments are not considered persuasive and the rejections based on Isakovic are maintained below.

4. Applicant's amendments to the specification and claims overcome the previous objections and 112 rejections thereof.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

[claim 13]

7. Claim 13 recites "ASIC of type DDP 1000 of Texas Instruments or successor models thereof". It is unclear what constitutes a "successor model thereof" for the purposes of determining the scope of this claim. For example, must a "successor" model have the same input and output pins, be of the same processing architecture, have the same or similar model number, etc. Since the specification and claim 13 provide no guidance as to how to determine if a driver is a "successor model", claim 13 is indefinite.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Isakovic et al. (US 2002/0154145).

[claim 1]

10. Regarding claim 1, Isakovic discloses a DLP-projector for the active projection of stereoscopic images (Figure 6, Item 20), comprising at least one DMD (Paragraph 0105), at least a first driver circuit interacting with a memory (Figure 6, Items 22 and 104) and controlling at least one DMD (Figure 6, Item 20; Paragraph 0105), and at least a first signal input (Figure 6, Item 95) for the input of image data of at least a first image channel and a second image channel, and at least a second driver circuit interacting with a memory (Figure 6, Items 24 and 106); and a switching device (Figure 6, Item 108), which is connected on one side with the two driver circuits and on another side with at least the one DMD; wherein the first driver circuit processes image data of the first image channel and the second driver circuit processes image data of the second image channel, and the switching device directs to the DMD, alternately, one or more images or frames from the first driver circuit, and one or more images or frames from the second driver circuit (Paragraphs 0206-0214).

[claim 2]

11. Regarding claim 2, Isakovic discloses a DLP projector including at least a second signal input (Figure 6, Item 95, Input to 22); wherein the first signal input receives the image signals of the first image channel and forwards such to the first driver circuit, and the second signal input (Figure 6, Item 95, Input to 24) receives the image signals of the

second image channel and forwards such to the second driver circuit.

[claim 14]

12. Regarding claim 14, Isakovic discloses a switching device which connects all signal lines with the first driver circuit and data lines of the DMD only selectively with the first driver circuit or another driver circuit (Figure 6, Item 108).

[claim 15]

13. Regarding claim 15, Isakovic discloses a switching device which, for the projection of the image data of an image channel as a mono-image or mono-image sequence (e.g. a L or R image), connects the data lines of the DMD during a desired period of time only with the corresponding data lines of one of the driver circuits (Figure 6, Item 108).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 3, 4, 11, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isakovic et al. (US 2002/0154145).

[claims 3 and 4]

16. Regarding claims 3 and 4, Isakovic discloses synchronization components for controlling the system (Figure 6, Items 92 and 100; Paragraphs 0157-0164). However,

while Isakovic discloses the use of a clock within the system (e.g. Paragraph 0166), Isakovic does not explicitly disclose that a clock is used for synchronizing the image signals. Official Notice is taken that it is well known in the art to use clock signals to form synchronization signals to keep a proper time source and ensure that operations occur at proper times. Therefore, it would be obvious to use a clock signal to form synchronization signals since clock signals allow for an easy way to track time within a computer system.

[claim 11]

17. Regarding claim 11, Isakovic discloses synchronizing the driver circuits (Figure 6, Inputs 101 to drivers 22 and 24). For further details see the rejection of claims 3 and 4 above.

[claim 12]

18. Regarding claim 12, Isakovic discloses producing a control signal for shutter glasses (Figure 6, Items 110 and 116), but does not explicitly disclose the use of a microprocessor to generate the control signal. However, Isakovic discloses that PC components including microprocessors can be used to implement the system using off-the-shelf PC hardware to allow for updates over the course of time (Paragraphs 0027-0029). Therefore, it would be obvious to use a PC system including a microprocessor to produce the control signal so that the system may be updated later to keep the highest status of power and efficiency.

[claim 16]

19. Regarding claim 16, Isakovic discloses electronic devices such as driver circuits and a switching device. Official Notice is taken that it is well known in the art to arrange electronic devices on circuit boards in order to simplify the construction and installation of the devices. Therefore, it would be obvious to use circuit boards for the driver circuits and switching device in order to simplify the construction and installation of the system. It is noted that claim 16 is written using "comprising" language and is not thought to be limited to a single circuit board.

Allowable Subject Matter

20. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

[claim 13]

21. While it would be considered obvious to use an ASIC of type DDP 1000 made by Texas Instruments as a driver circuit of a projector, it would not be considered obvious to replace the graphics computers of Isakovic which process scene data with a comparatively simple driver ASIC since such a device would not be capable of performing the necessary functions of the graphics computers of Isakovic.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY J. HENN whose telephone number is (571)272-7310. The examiner can normally be reached on M-F 11-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy J Henn/
Primary Examiner, Art Unit 2622